

THEOREM: FUNDAMENTAL THEOREM OF ARITHMETIC

Every positive integer greater than 1 can be expressed uniquely as a product of primes (PRIME FACTORIZATION).

Example:

Write 1155 as a product of primes. Since $1155 > 1$, then by *Prime Factorization*

we have:

$$1155 = 3 \times 385$$

$$1155 = 3 \times 385$$

$$1155 = 3 \times 5 \times 77$$

$$385 = 5 \times 77$$

$$1155 = 3 \times 5 \times 7 \times 11$$

$$77 = 7 \times 11$$